

Abstract of the Disclosure

Provided is a perpendicular magnetic recording medium in which a perpendicular orientation promoting underlayer is formed between a substrate and a perpendicular magnetic recording layer for inducing the perpendicular orientation of the perpendicular magnetic recording layer, the perpendicular magnetic recording medium further including a crystal growth discontinuation layer between the substrate and the perpendicular orientation promoting underlayer for suppressing continuous crystal growth from the underlayer to the perpendicular magnetic recording layer. The effective suppression of crystal growth in the perpendicular magnetic recording layer results in low noise levels. Therefore, the perpendicular magnetic recording medium has high-density recording applications with increased signal-to-noise ratio.

10

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100